

1           FABRICATION OF SEMICONDUCTOR DIES WITH MICRO-PINS  
2                   AND STRUCTURES PRODUCED THEREWITH

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4                   ABSTRACT OF THE INVENTION

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6   A method for forming a semiconductor die, comprising  
7   forming a trench in a surface of the die; filing the  
8   trench with a sacrificial material; patterning the die  
9   to form a series of channels extending substantially  
10  perpendicularly to the trench; depositing a conductive  
11  material in the channels; removing at least a portion  
12  of the sacrificial material; and removing portions of  
13  the die under the trench so as to separate a portion of  
14  the die on one side of the trench from a portion on  
15  another side of the trench. The sacrificial material  
16  may be patterned so that the channels extend so as to  
17  be partially in a portion of the die and partially a  
18  portion of the sacrificial material. A series of  
19  structures are formed having dies with micro-pins.